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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/904,085	07/12/2001	Richard L. House	062891.0555	1874

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EXAMINER

KNOLL, CLIFFORD H

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/904,085

Applicant(s)

HOUSE, RICHARD L.

Examiner

Clifford H Knoll

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The use of the trademark AMPHENOL has been noted in this application, both in the specification and claims. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1, 3, 5, 6, 8, 11, 13, 14, 16-20, 23, and 25, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2112

In claim 1, “the input node” (lines 9-10) lacks antecedent basis. The recitation of “thereby coupling the input node of the first card to the input node of the second card” (lines 14-17) is unclear because its relationship to previously recited steps cannot be determined.

In claims 3 and 11, the “amphenol twenty-five pair cable” is unclear, because it is not clear what step limitation is intended by the recitation.

In claim 5, the “line card” is unclear because it is not clear what step limitation is intended by the recitation.

In claim 6, the “network interface card” is unclear because it is not clear what step limitation is intended by the recitation.

In claim 8, the recited “circuitry operable...” (lines 19-21), and “a switch operable...” (lines 21-23) is unclear because it is not clear what method step limitation is intended by the recitation.

In claim 13, the “formed on a backplane of the chassis” is unclear because it is not clear what step limitation is intended by the recitation.

In claim 14, the “associated output node of the first card” lacks antecedent basis. The recitation of “thereby coupling the input node of the first card to the test circuitry” (lines 14-15) is unclear because its relationship to previously recited steps cannot be determined.

In claims 16 and 23, the “amphenol twenty-five pair cable” is unclear, because it is not clear what step limitation is intended by the recitation.

In claim 17, the “line card” is unclear because it is not clear what step limitation is intended by the recitation.

Art Unit: 2112

In claim 18, the “network interface card” is unclear because it is not clear what step limitation is intended by the recitation.

In claim 19, the “interface connectors disposed...” (lines 5-6) is unclear because it is not clear what step limitation is intended from this recitation.

In claim 20, the recited “circuitry operable...” (lines 9-11), and “a switch operable...” (lines 11-13) is unclear because it is not clear what method step limitation is intended by the recitation.

In claim 25, the “portion ... formed on a backplane” is unclear because it is not clear what step limitation is intended to be distinguished by the apparently apparatus limitation.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 3, 5, 6, 8, 11, 13, 16-18, 20, 23, and 25, are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The instant claims appear to recite apparatus limitation in a method claim.

“[A] claim which is intended to embrace both product or machine and process is precluded by language of 35 USC 101, which sets forth statutory

Art Unit: 2112

classes of invention in alternative only, and is also invalid under 35 USC 112, second paragraph, since claim which purports to be both machine and process is ambiguous and therefore does not particularly point out and distinctly claim subject matter of invention." (See *Ex parte Lyell* 17 USPQ2d 1548).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 4-10, 12-15, 17-22, 24-28, 30-37 are rejected under 35

U.S.C. 102(e) as being anticipated by Liva (US 2002/0179720).

Regarding claim 1, Liva discloses first and second cards in a chassis with input and output nodes (e.g., paragraph [0019], "410", "415"); providing a facilitator card in the chassis having an input node connectable to the common bus and an output node connectable to an input node (e.g., paragraph [0019], "420"), connecting the input node of the second card to the output node of the redundancy facilitator card (e.g., paragraph [0019], "primary I/O card 420 re-routes RF traffic..."), connecting the input node of the first card, thereby coupling

Art Unit: 2112

the input node of the first card to the input node of the second card to provide redundancy (e.g., paragraph [0023]).

Regarding claim 2, Liva also discloses connecting the input node of the second card to the output node of the facilitator card by a cable (e.g., paragraph [0019], "The interconnects between additional I/O card 425...").

Regarding claim 4, Liva also discloses connecting the input node to the output node of the first card after determining a failure has occurred (e.g., paragraph [0022]).

Regarding claim 5, Liva also discloses a line card (e.g., paragraph [0019]).

Regarding claim 6, Liva also discloses a network interface card as the first card (e.g., paragraph [0003]).

Regarding claim 7, Liva also discloses connecting the input node of the second card to the output node of the redundancy facilitator card by a cable and a pair of interface connectors disposed on a backplane (e.g., paragraph [0019]).

Regarding claim 8, Liva also discloses circuitry to perform a function and a switch to connect the input node of the card to either the output node or the circuitry of the card (e.g., paragraph [0022]).

Regarding claim 9, Liva also discloses connecting the input node of the second card to a first interface connector located on a backplane of the chassis and connecting the output node of the facilitator card to a second interface connector located on the backplane (e.g., paragraph [0019], Figure 5).

Regarding claim 10, Liva also discloses connecting the first interface connector to the second interface connector by a cable (e.g., paragraph [0019]).

Art Unit: 2112

Regarding claim 12, Liva also discloses connecting the first connector to the second interface connector by conductors formed on the backplane (e.g., paragraph [0019]).

Regarding claim 13, Liva also discloses a portion of the common bus is formed on the backplane of the chassis.

Regarding claim 14, Liva discloses first and second cards in a chassis (e.g., paragraph [0019], "410", "415"), providing a test card (e.g., paragraph [0025]), connecting the input node of the second card to the output node of the test card (e.g., Figure 5), connecting the input node of the first card to the associated output node of the first card and connecting the input node of the test card to the test circuitry (e.g., paragraph [0019]).

Regarding claim 15, Liva also discloses connecting the input node of the second card to the output node of the test card by a cable (e.g., paragraph [0019]).

Regarding claim 17, Liva also discloses a line card (e.g., paragraph [0019]).

Regarding claim 18, Liva also discloses a network interface card as the first card (e.g., paragraph [0003]).

Regarding claim 19, Liva also discloses connecting the input node of the second card to the output node of the test card by a cable and a pair of interface connectors, the interface connectors disposed on a backplane of the chassis (e.g., paragraph [0019]).

Art Unit: 2112

Regarding claim 20, Liva also discloses circuitry to perform a function and a switch to connect the input node of the card to either the output node or the circuitry of the card (e.g., paragraph [0022]).

Regarding claim 21, Liva also discloses connecting the input node of the second card to the output node of the test card by a cable and a pair of interface connectors disposed on a backplane and connecting the output node of the test card to a second interface connector located on the backplane (e.g., paragraph [0019]).

Regarding claim 22, Liva also discloses connecting the first interface connector to the second interface connector by a cable (e.g., paragraph [0019]).

Regarding claim 24, Liva also discloses connecting the first interface connector to the second interface connector by conductors formed on the backplane (e.g., paragraph [0019]).

Regarding claim 25, Liva also discloses the common bus portion formed on a backplane (e.g., paragraph [0019]).

Regarding claim 26, Liva also discloses a chassis, first and second cards with logic, input and output nodes (e.g., paragraph [0019]), a switch operable to connect the input node of the card to either the output node of the card or the card logic (e.g., Figure 5), a facilitator card disposed in one of the slots having input and output nodes and a first connector operable to connect the input node to the output node (e.g., paragraph [0019], "420"), where the backplane comprises a bus connected to the output nodes of the cards and the input node

Art Unit: 2112

of the facilitator card and a second connector connecting the output node of the facilitator card to the input node of the second card (e.g., Figure 5).

Regarding claim 27, Liva also discloses the second connector comprises a cable (e.g., paragraph [0019]).

Regarding claim 28, Liva also discloses the pair of interface connectors (e.g., paragraph [0019]).

Regarding claim 30, Liva also discloses the switch (e.g., Figure 5).

Regarding claim 31, Liva also discloses a conductor connecting the input node of the facilitator card to the output node of the facilitator card (e.g., Figure 5).

Regarding claim 32, Liva also discloses the test circuitry and a switch further operable to selectively connect the input node of the3 facilitator card to the test circuitry (e.g., paragraph [0022]).

Regarding claim 33, Liva also discloses a line card (e.g., paragraph [0019]).

Regarding claim 34, Liva also discloses a network interface card as the first card (e.g., paragraph [0003]).

Regarding claim 35, Liva discloses first and second cards, and means for selectively connecting the input node of the first card to the output node of the first card and means for connecting the output node of the first card to the input node of the second card (e.g., Figure 5).

Regarding claim 36, Liva also discloses a line card (e.g., paragraph [0019]).

Art Unit: 2112

Regarding claim 37, Liva also discloses a network interface card as the first card (e.g., paragraph [0003]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 11, 16, 23, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liva as applied above, further in view of Heilmann (US 2003/0112940).

Regarding claims 3, 11, 16, 23, and 29, Liva also discloses the use of a multi-pin pair cable, but does not expressly mention the particular implementation of an amphenol twenty-five pair cable; however Heilmann discloses this detail (e.g., paragraph [0042]). It would have been obvious to combine Heilmann with Liva because Heilmann teaches the advantages of using a conventional cable arrangement (e.g., paragraph [0028]) in implementing the multi-pin pair cable of Liva. Therefore, it would be obvious to one of ordinary skill in the art to combine Heilmann with Liva at the time the invention was made.

Art Unit: 2112

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cantwell (US 6122273) also discloses a method for providing redundancy for a card in a chassis.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.

chk


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TC2100